Appendix K: Cost Assumptions for BMP's

COST ASSUMPTIONS FOR BEST MANAGEMENT PRACTICES

1. **Basin wide detention practices** include a combination of rain barrels and rain gardens. Assumes an average treatment area of 0.25 acres. Each treatment area assumes two 60 gallon rain barrels and one rain garden or infiltration trench. Assumed costs are $160.00 for rain barrels and $3,500 for each rain garden ($7.00/sq ft) or infiltration trench.
2. **Porous/Permeable pavement/infiltration basin retrofits** assume an average material and construction cost of $12/square foot. Final costs will be dependent on the surface type used.
3. **Costs for field borders, filter strips, grass conversion, and riparian buffer strips** are calculated at $4,000/ac, assuming a minimum width of 50 feet. Costs are generated using NRCS cost-share rates and professional judgment and include land preparation, materials and seeding.
4. **Bioswales:** $15.00/ sq/ft (http://greenvalues.cnt.org/national/cost_detail.php). This practice is focused on vegetation enhancement.
5. **Cover Crops:** based on NRCS cost-share rates and are assumed to cost $60/ac/yr on average.
6. **No-till/strip-till:** based on NRCS rates and are assumed to cost $35/ac/yr on average.
7. **Nutrient Management:** estimated to be $20.00 an acre based on NRCS cost-share rates.
8. **Riffles/Grade Control Structures:** based on professional judgment and field experience and range from $8,000 - $50,000 per individual structure.
9. **Streambank/Lake Bank Stabilization:** based on local experience and are assumed at $100/ft for lake bank stabilization and $300/ft for streambank stabilization.
10. **Wetland creation/restoration:** assumes all materials, engineering and earthwork or excavation costs of $80,000/acre based on local costs. This does not include land acquisition or monitoring and mitigation costs.
11. **Wetland Enhancement:** assumes a cost of $30,000/acre based on local costs.
12. **New Detention Basins/Ponds:** based on site conditions and professional judgment/experience and range from $50,000-$100,000 each. This does not include land acquisition.
13. **Grassed Waterways:** assume a cost of $8,000/acre based on typical NRCS cost-share rates and local experience judgment.
14. **WASCOBs:** based on NRCS cost-share rates and professional experience and assume an average of $4,000/basin including tile.
15. **Pasture Enhancement BMPs:** include a combination of costs for multiple practices and are based on both NRCS cost-share rates and professional experience and judgment. Costs assume some fencing, grass planting, a watering system, and a diversion. An average cost of $40,000 is assumed for each site.
16. **Feed Area Management:** assumes a waste management basin/system and is based on professional judgment at a cost of $50,000/system.
17. In the absence of a solid foundation for estimating costs for **problem discharge locations, hydrologic impediments, and detention basin retrofits**, a range of costs are used
    a. $10,000 - $80,000 for hydraulic impediments
    b. $5,000 - $30,000 for maintenance of problem discharge locations
    c. $5,000 - $50,000 for detention basin retrofits
18. **In-Lake/Low Flow Dams:** based on professional judgment, assume an earth embankment structure at a cost of $1,200/ft at an average length of 300 ft plus a 30% contingency for permitting and engineering.

Note – An additional 20% should be placed on top of total estimated costs for all BMPs to account for engineering/permitting, annual maintenance or any other contingencies.